REMARKS

Reconsideration of the pending application is respectfully requested in view of the following observations.

1. In the specification

The amendment to the specification is submitted to add appropriate section headings and to remove explicit reference to the claims.

No new matter is entered by way of the amendment to the specification.

Entry of the amendment to the specification is kindly requested.

2. In the claims

Claims 1, 7-12, 14, 16, 17, 19, and 20 are currently amended. Claims 2-6, 13, 15, and 18 are previously presented. Claims 21-23 are new.

Claim 1, 7-12, 14, 16, 17, and 20 are amended to correct indefinite language identified in the office action.

Claim 19 is amended to correct similarly indefinite language identified in claim 1.

Claims 21-23 are submitted to include alternatives removed from claims 8, 9, and 16, respectively.

The claims are now considered to be placed in condition for allowance.

No new matter is introduced via the amendment to the claims.

Entry of the amendment to the claims is kindly requested.

3. Objections to claims 1-18 and 20 and Rejections to claims 1-18 and 20 under 35 USC 112, 2nd paragraph

Claim 1 has been amended to clarify that the illumination apparatus, the sensor device, and the evaluation unit are arranged to allow capturing of a plurality of measured values of the luminescent radiation along each one of a plurality of measuring tracks extending across the document of value. It is submitted that amended claim 1 now clearly claims that the elements of the apparatus are arranged in such a way that allows the capturing of a plurality of measured values.

Claim 1 is further amended to clarify that the tracks extend across the document of value. It is submitted that claim 1 is no longer inconsistent with claim 7.

Regarding claim 3, it is submitted that claim 3 is not inconsistent with claim 1. Claim 3 recites the use of integrated luminescence measuring and not-integrated measured values of luminescence radiation and is not inconsistent with the integrated luminescence measuring of claim 1. Claim 1 does not recite that the evaluation unit exclusively uses integrated luminescence measuring. Further, integrated values and not-integrated values are not mutually exclusive. Thus, the evaluation unit may use not-integrated values in addition to integrated values.

Claim 7 has been amended to clarify that the documents of value are transported in a direction parallel to the tracks and the luminescence measuring is done along the measuring tracks.

Claim 8 has been amended to remove the alternative of the tracks being spaced apart from each other. The alternative of the tracks being spaced apart from each other is now claimed in new claim 21.

Claim 9 has been amended to clarify that the sum of the widths of all the tracks is larger than the dimension of the document of value in the direction perpendicular to the tracks.

Claim 10 has been amended to remove the alternative of pulsed illumination and now positively claims that the illumination is a continuous illumination.

Claims 11 and 12 have been amended to clarify that the measuring is done in a direction along the track direction.

Claim 14 has been amended to remove "either or both."

Claim 16 has been amended to clarify that the wavelength evaluation range is more than about 800 nanometers.

Claim 17 has been amended to remove the term "additional."

Claim 20 has been amended to clarify that the luminescent feature substances are incorporated in or applied in a random distribution.

Withdrawal of the rejection of the claims is respectfully requested.

4. Rejection of claims 1-3, 6-8, 10, 15, and 17-19 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*)

Reconsideration of the rejection is respectfully requested in view of the amendment to the claims and the following observations.

Amended claim 1 recites an apparatus for checking documents of value having luminescent feature substances. The apparatus includes an illuminating apparatus, a sensor device, and an evaluation unit. The illuminating apparatus, the sensor device, and the evaluation unit are arranged to allow capturing of a plurality of measured values of the luminescent radiation along each one of a plurality of measuring tracks across the document of value. The evaluation unit carries out the evaluation using integrated luminescence measuring which is obtained by integrating the measured values of the respective measuring track.

It is submitted that *Guter* in view of *Okamura* fails to teach or suggest all of the features of amended claim 1.

First, the proposed combination of *Guter* and *Okamura* does not teach or suggest the capturing of a plurality of luminescent radiation values along each measuring track. *Guter* is directed to measuring the amount of dirt accumulation on a bank note and does not explicitly disclose that the bank note has luminescent feature substances. Further, *Guter* determines the amount of dirt accumulated by measuring the amount of light that is able to pass through the bank note using a combination of a light source (5) and multiple photodiodes (10a, 10b, 10c) (see col. 4, lines 40-46). As explained in *Guter*, the photodiodes (10a, 10b, 10c) measure the amount of light received and produce an output signal depending on the amount of light received. Moreover, a problem with the prior art of *Guter* is that the transparency as well as the shading of the paper used for the bank notes affects the accuracy of the measurement (see col. 1, lines 40-53).

Guter does not disclose the measurement of luminescent radiation. Luminescent radiation is an emission of light from luminescent substances. *Guter* does not measure light emitted from luminescent substances. To the contrary, *Guter* measures light from a light source which is not a luminescent substance in the document of value. Further, the photodiodes (10a, 10b, 10c) measure light in general and not only luminescent radiation.

In order for the luminescent substance to emit luminescence radiation, the luminescent substances must be excited in some manner. *Guter* discloses no excitation of luminescent substances which would result in an emission of light. Moreover, the light source (5) cannot be considered to excite the luminescent substances since *Guter* is directed to measuring the amount of light able to pass through the bank note. As a result, if any of the luminescent substances were sufficiently excited by the light source to emit light, the measurements of the photodiodes would be inaccurate if luminescence radiation were not accounted for. *Guter* does not take into account in the measurements any form of luminescence radiation. Thus, even if the bank note of *Guter* contains luminescent substances, *Guter* does not disclose measuring light emitted from these substances.

Okamura also does not disclose or suggest the feature of measuring luminescence radiation. *Okamura* is directed to scanning of MICR text on a check (see col. 4, lines 53-60). *Okamura* scans an image of the check to detect MICR text and does not subject the check to light which would cause luminescence radiation. The proposed combination of *Guter* and *Okamura* does not disclose an apparatus which measures luminescence radiation.

Next, the proposed combination of *Guter* and *Okamura* does not disclose or suggest a measurement of luminescence radiation along a plurality of measuring tracks as required by amended claim 1.

As acknowledged in the office action, *Guter* discloses only a single track (see office action, page 7). It is submitted that *Okamura* also does not disclose a plurality of measuring tracks.

The office action refers to preliminary scanning areas T and T' to be a plurality of scanning tracks. However, *Okamura* discloses only the use of a single preliminary scanning area across the check which is used to acquire gray scale data (see col. 7, lines 46-54). The use of a single preliminary scanning area is further evidenced by the fact that only scanning area T is used to determine the method applied in the binarization process (see col. 8, lines 17-19). The preliminary scanning area T' is merely used as an example of a position offset a specific distance from where the MICR text is first detected (see col. 7, lines 65-67) since *Guter* discloses either preliminary scanning area T or preliminary scanning area T' may be used for the acquisition of gray scale data (see col. 7, lines 46-67 and col. 8, lines 17-19).

Accordingly, the proposed combination of *Guter* and *Okamura* does not disclose or suggest all of the features of amended claim 1.

Moreover, a skilled person would not combine *Guter* and *Okamura*. As discussed above, *Guter* is directed to determining the amount of dirt which has accumulated on a bank note.

Okamura is concerned with determining the best binarization method to be used for scanning the full image of a check where the density and a pattern of the background would affect the ability to read essential text on the check and thus, increase the need for a higher quality image (see col. 1, lines 40-50 and col. 2, lines 7-14). The scanning area T or T' in *Okamura* is used to specifically scan an area which contains MICR text so that the system can more accurately separate the background pattern from the text (see col. 8, lines 11-13 and lines 31-34). *Guter* does not disclose a need to specifically scan a certain area. Indeed, by default, *Guter* scans the lower edge of the bank note (see col. 4, lines 27-39). Thus, a skilled person would not combine *Guter* and *Okamura*.

Claim 19 contains similar features to amended claim 1 and is thus, allowable at least for the reasons discussed above in view of claim 1. Moreover, claims 2, 3, 6-8, 10, 15, 17, 18, and 20-23 are dependent from claims 1 or 19 and are likewise in condition for allowance in view of their dependency from one of claims 1 and 19 and their individually recited features.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

5. Rejection of claims 4, 5, 12, and 16 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*) and US patent 6,741,727 (*Hirasawa*)

Claims 4, 5, 12, and 16 depend from claim 1 and are likewise allowable in view of their dependency from claim 1 as discussed above and their individually recited features. Moreover, *Hirasawa* does not cure the deficiencies of *Guter* or *Okamura* and a skilled person would not combine *Hirasawa* with *Guter* and *Okamura*.

Hirasawa discloses measuring spectral reflectance of a sheet of paper or chromatic color ink. This reflectance is measured by applying a light source to the paper and measuring the amount of light reflected from the paper (see Figs. 3A and 3B). The system used by *Hirasawa* to determine the amount of soil on the paper is incompatible with the system of

Guter since *Guter* determines the amount of soil on the bank note by measuring light passing through the bank note and not light reflected from a bank note. Measuring reflectance requires placing the sensor on the same side as the side subjected to the light source while measuring light passing through the bank note requires placing the sensor on the opposite side of the side subjected to the light source.

Accordingly, the proposed combination of *Guter*, *Okamura*, and *Hirasawa* does not teach or suggest all of the features of the claims as discussed above and a skilled person would not combine *Hirasawa* with *Guter* and *Okamura*.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

6. Rejection of claim 7 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*) and US patent 6,636,624 (*Raterman*)

Claim 7 depends from claim 1 and is likewise allowable for the reasons above in view of its dependency from claim 1 and its individually recited features. Moreover, *Raterman* does not cure the deficiencies of *Guter* and *Okamura* as discussed above.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

7. Rejection of claim 13 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*) and EP 0744716 (*Cummings*)

Claim 13 depends from claim 1 and is likewise allowable for the reasons above in view of its dependency from claim 1 and its individually recited features. Moreover, *Cummings* does not cure the deficiencies of *Guter* and *Okamura* as discussed above.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

8. Rejection of claim 14 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*) and US patent 6,974,623 (*Schwenk*)

Claim 14 depends from claim 1 and is likewise allowable for the reasons above in view of its dependency from claim 1 and its individually recited features. Moreover, *Schwenk* does not cure the deficiencies of *Guter* and *Okamura* as discussed above and a skilled person would not combine *Schwenk* with *Guter* and *Okamura*.

Schwenk is directed to detecting coding applied on a banknote using luminescent substances and does not disclose a plurality of tracks. Furthermore, a skilled person would

not combine *Schwenk* with *Guter* and *Okamura*. *Guter* measures the amount of light passing through a banknote placing the light source (5) on one side and the photodiodes on the other side of the banknote. *Schwenk* measures luminescent radiation by using a detector (16) and light source (12) placed on the same side of the banknote (see Fig. 4).

Accordingly, the proposed combination of *Guter*, *Okamura*, and *Hirasawa* does not teach or suggest all of the features of the claims as discussed above and a skilled person would not combine *Hirasawa* with *Guter* and *Okamura*.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

9. Rejection of claim 11 under 35 USC 103(a) over US patent 4,189,235 (*Guter*) in view of US patent 7,426,291 (*Okamura*) and GB 2122743 (*Bergstrom*)

Claim 11 depends from claim 1 and is likewise allowable for the reasons above in view of its dependency from claim 1 and its individually recited features. Moreover, *Bergstrom* does not cure the deficiencies of *Guter* and *Okamura* as discussed above and a skilled person would not combine *Bergstrom* with *Guter* and *Okamura*.

Bergstrom does not disclose measuring luminescent radiation along a plurality of tracks. *Bergstrom* measures light reflected from the entire surface of the banknote and specifically discloses that the optical sensor (5) should be placed at a distance from the bank note such that the contributions from the entire surface of the banknote can be integrated without giving geographic preference (see page 2, lines 67-90 and Fig. 1). Furthermore, the optical sensor (5) and the light sources (4) illuminate and measure reflectance from the same side of the banknote. This arrangement of the optical sensor (5) and light sources (4) is completely contrary to the arrangement of *Guter* such that a skilled person would not combine *Bergstrom* with the primary reference of *Guter*.

Accordingly, the proposed combination of *Guter*, *Okamura*, and *Hirasawa* does not teach or suggest all of the features of the claims as discussed above and a skilled person would not combine *Hirasawa* with *Guter* and *Okamura*.

Withdrawal of the rejection of the claims in view of the prior art is kindly requested.

10. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance.

Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicant's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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